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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/821,821

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J. Daren Bledsoe

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EXAMINER

RODRIGUEZ, LENNIN R

ART UNIT

PAPER NUMBER

2625

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/821,821	<b>Applicant(s)</b> BLEDSOE ET AL.	
	<b>Examiner</b> LENNIN R. RODRIGUEZ	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 19-25 is/are pending in the application.
- 4a) Of the above claim(s) 7-18 and 26-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 19-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/8/2004</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Species I in the reply filed on 5/6/2008 is acknowledged.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh (US 5,734,483) in view of Yamamoto et al. (US 6,943,922).

(1) regarding claim 1:

Itoh '483 discloses a scanner (column 1, lines 15-18), comprising:

a housing (column 3, lines 46-48);

a transparent platen atop the housing for receiving an object to be scanned (column 2, lines 48-54, where glass has to be transparent in order to let the scanner scan the document);

a carriage operable to travel along a first direction and a second direction (column 7, lines 8-18, where the carriage 14 moves along a document line as a first direction and downward as a second direction), the carriage comprising:

a light source for illuminating the object (column 4, lines 27-29);

Itoh '483 discloses all the subject matter as described above except a rectangular photodetector array for simultaneously detecting light intensity of multiple scan lines, the rectangular photodetector array comprising more than three rows of photodetectors.

However, Yamamoto '922 teaches a rectangular photodetector array for simultaneously detecting light intensity of multiple scan lines, the rectangular photodetector array comprising more than three rows of photodetectors (Fig. 3 and column 2, lines 45-67 to column 3, lines 1-4, where the photodetector has 2 or more lines, thus including the 3 or more condition of the limitation).

Having a system of Itoh '483 and then given the well-established teaching of Yamamoto '922 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the scanner system of Itoh '483 reference to include a rectangular photodetector array for simultaneously detecting light intensity of multiple scan lines, the rectangular photodetector array comprising more than three rows of photodetectors as taught by Yamamoto '922 reference because in this way it will cover more area of the document to be scanned at once, thus consuming less power and effort to performed the scanning.

(2) regarding claim 19:

Itoh '483 further discloses a scanner (column 1, lines 15-18), comprising:

a housing (column 3, lines 46-48);

a transparent platen atop the housing for receiving an object to be scanned (column 2, lines 48-54, where glass has to be transparent in order to let the scanner scan the document);

illumination means for illuminating the object (column 4, lines 27-29);

carriage means supporting the illumination means and the light intensity detection means for transporting the illumination means and light intensity detection means in a first direction and a second direction (column 7, lines 8-18, where the carriage 14 moves along a document line as a first direction and downward as a second direction and column 9, lines 13-18).

Itoh '483 discloses all the subject matter as described above except light intensity detection means for simultaneously detecting light intensity of multiple scan lines;

However, Yamamoto '922 teaches light intensity detection means for simultaneously detecting light intensity of multiple scan lines (column 5, lines 40-44);

Having a system of Itoh '483 and then given the well-established teaching of Yamamoto '922 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the scanner system of Itoh '483 reference to include light intensity detection means for simultaneously detecting light intensity of multiple scan lines as taught by Yamamoto '922 reference because in this way it will cover more area of the document to be scanned at once, thus consuming less power and effort to performed the scanning.

(3) regarding claims 2 and 21:

Itoh '483 further discloses wherein the carriage further comprises:

a mounting plate having a horizontal guide (16 in Fig. 3), the light source (column 4, lines 27-29) and the rectangular photodetector array being mounted on the mounting plate (column 9, lines 13-18);

a first motor linked to a first gear (column 6, line 29, motor **29**); and

a horizontal carriage bar defining a horizontal guide channel for receiving the horizontal guide and a horizontal gear channel for receiving the first gear, the first motor being operable to drive the first gear to move the carriage along the horizontal direction (column 6, lines 22-32).

(4) regarding claims 3 and 22:

Itoh '483 further discloses the horizontal carriage bar has vertical guides (column 6, lines 39-42);

the carriage further comprises a second motor linked to a second gear (column 6, lines 51-54, motor **36**); and

the housing defines vertical guide channels for receiving the vertical guides and a vertical gear channel for receiving the second gear, the second motor being operable to drive the second gear to move the carriage along the vertical direction (column 6, lines 33-49).

(5) regarding claims 4 and 23:

Itoh '483 discloses all the subject matter as described above except wherein the light source comprises a ring of light emitting diodes formed around the rectangular photodetector array.

However, Yamamoto '922 teaches wherein the light source comprises a ring of light emitting diodes formed around the rectangular photodetector array (column 3, lines 66-67 and column 4, lines 1-7).

Having a system of Itoh '483 and then given the well-established teaching of Yamamoto '922 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the scanner system of Itoh '483 reference to include a ring of light emitting diodes formed around the rectangular photodetector array as taught by Yamamoto '922 reference because in this way it will cover more area of the document to be scanned at once, thus consuming less power and effort to performed the scanning.

(6) regarding claim 20:

Itoh '483 discloses all the subject matter as described above except wherein the light intensity detection means comprises an array of photodetectors having at least three rows of photodetectors.

However, Yamamoto '922 teaches wherein the light intensity detection means comprises an array of photodetectors having at least three rows of photodetectors (Fig. 3 and column 2, lines 45-67 to column 3, lines 1-4, where the photodetector has 2 or more lines, thus including the 3 or more condition of the limitation).

Having a system of Itoh '483 and then given the well-established teaching of Yamamoto '922 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the scanner system of Itoh '483 reference to include light intensity detection means comprises an array of

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photodetectors having at least three rows of photodetectors. as taught by Yamamoto '922 reference because in this way it will cover more area of the document to be scanned at once, thus consuming less power and effort to performed the scanning.

4. Claims 5 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh (US 5,734,483) and Yamamoto et al. (US 6,943,922) as applied to claims above, and further in view of Hergeth (US 6,888,083).

(1) regarding claims 5 and 24:

Itoh '483 and Yamamoto '922 disclose all the subject matter as described above except wherein the rectangular photodetector array comprises a complementary metal oxide semiconductor (CMOS) image sensor array.

However, Hergeth '083 teaches wherein the rectangular photodetector array comprises a complementary metal oxide semiconductor (CMOS) image sensor array (column 2, lines 45-56).

Having a system of Itoh '483 and Yamamoto '922 and then given the well-established teaching of Hergeth '083 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the scanner system of Itoh '483 and Yamamoto '922 reference to include that the rectangular photodetector array comprises a complementary metal oxide semiconductor (CMOS) image sensor array as taught by Hergeth '083 reference because in this way it will cover more area of the document to be scanned at once, thus consuming less power and effort to performed the scanning.



5. Claims 6 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh (US 5,734,483), Yamamoto et al. (US 6,943,922) and Hergeth (US 6,888,083) as applied to claims above, and further in view of Rich et al. (US 4,865,038).

(1) regarding claims 6 and 25:

Itoh '483, Yamamoto '922 and Hergeth '083 disclose all the subject matter as described above except wherein the light source comprises light emitting diodes located on a die, and the rectangular photodetector array is also located on the die.

However, Rich '038 teaches wherein the light source comprises light emitting diodes located on a die, and the rectangular photodetector array is also located on the die (column 3, lines 15-41).

Having a system of Itoh '483, Yamamoto '922 and Hergeth '083 and then given the well-established teaching of Rich '038 reference, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the scanner system of Itoh '483, Yamamoto '922 and Hergeth '083 reference to include light emitting diodes located on a die, and the rectangular photodetector array is also located on the die as taught by Rich '038 reference because in this way it will make the carriage more compact, thus saving space in the scanner for easier movement.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LENNIN R. RODRIGUEZ whose telephone number is

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(571)270-1678. The examiner can normally be reached on Monday - Thursday 7:30am - 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/  
Supervisory Patent Examiner, Art Unit 2625

/Lennin R Rodriguez/  
Examiner, Art Unit 2625